

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

# NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
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www.miamidade.gov/economy

HercuWall Inc. 1720 W. 10<sup>th</sup> Street, Suite 101 Tempe, AZ 85281

Scope: This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code. This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

#### **DESCRIPTION:** HercuWall EPS/Concrete Composite Wall Panel System

APPROVAL DOCUMENT: Drawing No. 12-03, titled "EPS/Concrete Composite Wall System", sheets 1 through 8 of 8, dated 05/01/2012, with revision B dated 08/31/2015, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance number and expiration date by the Miami-Dade County Product Control Section.

# MISSILE IMPACT RATING: Large and Small Missile Impact Resistant.

**LABELING:** A permanent label with the manufacturer's name or logo, Orlando, FL, model/series, and the statement reading 'Miami-Dade County Product Control Approved' is to be located on each panel.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA revises NOA # 12-0607.03 and consists of this page 1 and evidence pages E-1 and E-2, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.

MIAMI-DADE COUNTY APPROVED 10/21/2015

NOA No. 15-0908.06 Expiration Date: November 8, 2017 Approval Date: October 29, 2015 Page 1

#### NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. 12-03, titled "EPS/Concrete Composite Wall System", sheets 1 through 8 of 8, dated 05/01/2012, with revision B dated 08/31/2015, prepared by Al-Farooq Corporation, signed and sealed by Javad Ahmad, P.E.

#### B. TESTS "Submitted under NOA # 12-0607.03"

- 1. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a concrete composite solid wall, prepared by Hurricane Engineering & Testing, Inc, Test Report No. **HETI-11-3316**, dated 04/26/2012, signed and sealed by Rafael E. Droz-Seda, P.E.

- 2. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a concrete composite wall with large window opening, prepared by Hurricane Engineering & Testing, Inc, Test Report No. **HETI-11-3320**, dated 04/26/2012, signed and sealed by Rafael E. Droz-Seda, P.E.

- 3. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a concrete composite wall with large door opening, prepared by Hurricane Engineering & Testing, Inc, Test Report No. **HETI-11-3324**, dated 04/26/2012, signed and sealed by Rafael E. Droz-Seda, P.E.

- 4. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a concrete composite wall with small window opening, prepared by Hurricane Engineering & Testing Inc, Test Report No. **HETI-12-4005**, dated 04/26/2012, signed and sealed by Rafael E. Droz-Seda, P.E.

Carlos M. Utrera, P.E. Product Control Examiner NOA No. 15-0908.06

10/21/2015

Expiration Date: November 8, 2017 Approval Date: October 29, 2015

# NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

#### B. TESTS (Continued)

- 5. Test reports on 1) Air Infiltration Test, per FBC, TAS 202-94
  - 2) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
  - 3) Water Resistance Test, per FBC, TAS 202-94
  - 4) Large Missile Impact Test per FBC, TAS 201-94
  - 5) Cyclic Wind Pressure Loading per FBC, TAS 203-94

along with marked-up drawings and installation diagram of a concrete composite wall with garage door opening, prepared by Hurricane Engineering & Testing, Inc, Test Report No. **HETI-12-4008**, dated 04/26/2012, signed and sealed by Rafael E. Droz-Seda, P.E.

### C. CALCULATIONS

1. None.

### D. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

# E. MATERIAL CERTIFICATIONS "Submitted under NOA # 12-0607.03"

- 1. Test reports on compressive strength Test of cylindrical concrete specimens per ASTM C39, prepared by Hurricane Engineering & Testing, Inc, Test Report No. **HETI-12-C100** and **HETI-11-C174**, both dated 02/16/2012, signed and sealed by Rafael E. Droz-Seda, P.E.
- 2. Test reports on Tensile Strength Test of steel shear strips per ASTM E8, prepared by Hurricane Engineering & Testing, Inc, Test Report No. HETI-12-T107 and HETI-11-T125, dated 04/26/2012 and 02/16/2012 respectively, signed and sealed by Rafael E. Droz-Seda, P.E.

#### F. STATEMENTS

1. Statement letter of code conformance to the 5<sup>th</sup> edition (2014) FBC and of no financial interest issued by Al-Farooq Corporation, dated 08/28/2015, signed and sealed by Javad Ahmad, P.E.

### "Submitted under NOA # 12-0607.03"

2. Statement letter of code conformance to 2010 FBC and no financial interest issued by Al-Farooq Corporation, dated 06/06/2012, signed and sealed by Javad Ahmad, P.E.

## G. OTHER

**1.** Test proposal No. 11-0631.

Carlos M. Utrera, P.E. Product Control Examiner NOA No. 15-0908.06

Expiration Date: November 8, 2017 Approval Date: October 29, 2015

### COMPONENTS SPECIFICATIONS

READY-MIXED CONCRETE FOR WALL PANELS SHALL MEET ALL REQUIREMENTS OF ACI 301, CEMENT, U.N.O. MINIMUM STRENGTH AT 28 DAYS SHALL BE 3000 PSI., MAXIMUM AGGREGATE SIZE IS 3/8" OR ROCK MIX.

HYDRAULIC GROUT PUMP WITH A 3" OR SMALLER DISCHARGE REDUCED TO 2" OR 1-1/2" HOSE AT DELIVERY POINT.

#### REBAR REINFORCEMENT

USE ASTM A615 GRADE 60 FOR REINFORCEMENT.

LAP SPLICES TO BE A MINIMUM OF 48 BAR DIAMETERS.

VERTICAL REBAR IS NOT REQUIRED WITH WALL PANELS AS VERTICAL REINFORCING IS INTEGRAL TO THE SYSTEM (SHEAR STRIP). TWO CONTINUOUS HORIZONTAL REBAR REINFORCEMENTS SHALL BE PLACED WITHIN THE BOND BEAM AT TOP OF THE WALL WITHIN INTEGRAL PLASTIC HANGERS.

BAR DIAMETERS SHALL BE MINIMUM 1/2"(#4) OR HIGHER AS SPECIFIED BY THE ENGINEER OF RECORD.

#### SHEET METAL COMPONENTS

ALL SHEET METAL COMPONENTS INCLUDING SHEAR STRIP, TOP CAP, BASE TRACK, HEADER TRIM, WINDOW AND DOOR TRIM EXTERIOR AND INTERIOR SILL COVER SHALL BE MANUFACTURED FROM 24 GA. GALVANIZED COLD

GALVANIZED COATING SHALL BE A MINIMUM OF G-90 PER ASTM A653. STEEL USED IN THE MANUFACTURE OF SHEAR STRIPS IS SPECIFIED AT 50 KIPS YIELD STRENGTH, PER AISI 1010, ASTM A 109. STEEL USED IN ALL OTHER SHEET METAL COMPONENTS SHALL HAVE A MINIMUM YIELD STRENGTH OF 33 KIPS.

OUTER PANEL SKIN COATED WITH LATEX PRIMER AND SEALER.

#### **DIAMOND MESH (FOR STUCCO FINISH)**

DIAMOND MESH SHALL BE OF THE 'V' GROOVE 'SELF FURRING' LATH VARIETY. TYPE 2.5 LBS (PER SQ. YD.), GALVANIZED PER TABLE 3, NOTATION 'C' ASTM C1063-08.

SELF-FURRING DIAMOND MESH SHALL BE INSTALLED HORIZONTALLY AND ATTACHED TO SHEAR STRIPS WITH #8 X 1/2" SELF DRILLING SCREWS AT 6" O.C. VERTICALLY AND OVERLAPPED A MINIMUM OF 2 IN.

#### IMPACT TAPE (OPTIONAL TO DIAMOND MESH)

DECKER BRAND 43 OR EQUAL.

9 MIL POLYETHYLENE BACKING WITH A SYNTHETIC RUBBER ADHESIVE 8" WIDE TAPE APPLIED IN BETWEEN CONCRETE STUDS ON THE EXTERIOR

4" WIDE TAPE APPLIED OVER THE VERTICAL AND HORIZONTAL WIND SHEAR STRIPS ON THE EXTERIOR OF WALL.

ALL SCREWS CONNECTING SHEET METAL COMPONENTS SHALL BE ZINC PLATED OR GALVANIZED STEEL, #8 DIAMETER MIN. 1/2" LENGTH, SELF DRILLING TAPPING AND SHALL CONFORM TO SAE J 78 OR EQUAL.

SCREWS FOR STEEL-TO-STEEL CONNECTIONS SHALL BE INSTALLED WITH A MIN. EDGE DISTANCE AND CENTER-TO-CENTER SPACING OF 1/2", SHALL BE SELF DRILLING TAPPING AND SHALL CONFORM TO SAE J 78.

FOAM FOR WALL PANELS IS MANUFACTURED FROM EXPANDED POLYSTYRENE (EPS) AND SHALL HAVE MINIMUM DENSITY = 1.03 PCF MAX. FLAME SPREAD RATING = 10 AS PER ASTM E-84 SMOKE DEVELOPED INDEX = 130 SPONTANEOUS IGNITION TEMPERATURE = 752' F.

CONTINUOUS 1/8" BEAD OF CAULK APPLIED ON ALL JOINTS BETWEEN PANEL FORMS FROM T.O.W. TO BASE.

CAULK SHALL BE SILICONE VARIETY WITH A 100 YEAR WARRANTY.

# HERCUWALL COMPOSITE WALL PANEL SYSTEM

### MAXIMUM DESIGN LOAD RATING = ±55.0 PSF

| MAX. SHEAR PARALLEL TO WALL PANEL |                             |  |
|-----------------------------------|-----------------------------|--|
| WALL HEIGHT                       | SHEAR IN Lbs PER LINEAR FT. |  |
| 8 FT.                             | 84                          |  |
| 9 FT.                             | 75                          |  |
| 10 FT.                            | 67                          |  |

| MAX. AXIAL COMPRESSION AND TENSION |                                   |                               |  |
|------------------------------------|-----------------------------------|-------------------------------|--|
| STUD SPACING                       | COMPRESSION IN Lbs PER LINEAR FT. | TENSION IN Lbs PER LINEAR FT. |  |
| 8 IN.                              | 4320                              | 6388                          |  |
| 9-1/2 IN.                          | 3600                              | 5324                          |  |
| 12 IN.                             | 2880                              | 4259                          |  |

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE 2014 EDITION INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ALL ELECTRICAL, MECHANICAL DETAILS AND FIRE RATING PROVISIONS ARE NOT PART OF THIS APPROVAL AND SHALL BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND REVIEWD BY CORRESPONDING BUILDING DEPARTMENT.

HERCUWALL COMPOSITE WALL SYSTEM IS DESIGNED AND TO BE INSTALLED AS AN EXTERIOR OR INTERIOR BEARING OR NON BEARING WALL.

THIS PRODUCT CONTROL APPROVAL IS FOR THE WALL PANELS AS SHOWN ON THESE APPROVED DRAWINGS.

BUILDING DIMENSIONS, DETAILS, UPLIFT, FOUNDATIONS, ROOF AND OTHER ELEMENTS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER AND REVIEWED BY THE STRUCTURAL PLANS EXAMINAR OF THE CORRESPONDING BUILDING DEPARTMENT.

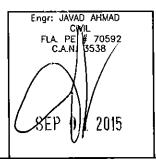
DISSIMILAR MATERIALS IN CONTACT WITH EACH OTHER SHALL BE PROTECTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BLDG. CODE.

DESIGN IS BASED ON TESTING IN ACCORDANCE WITH FLORIDA BUILDING CODE LARGE MISSILE IMPACT TEST, TAS 201-94. CYCLIC WIND PRESSURE TEST, TAS 203-94. STATIC AIR PRESSURE TEST, TAS 202. AIR INFILTRATION TEST, ASTM E283-04 WATER INFILTRATION TEST, ASTM E331-00

HERCUWALL COMPOSITE PANELS HAVE BEEN TESTED WITH INTERIOR 1/2" THK. GYPSUM BOARDS ATTACHED TO SHEAR STRIPS WITH #6 X 1-1/4" S.M.S. AT 12" O.C. VERTICALLY.

THIS PRODUCT APPROVAL DOCUMENT IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT.

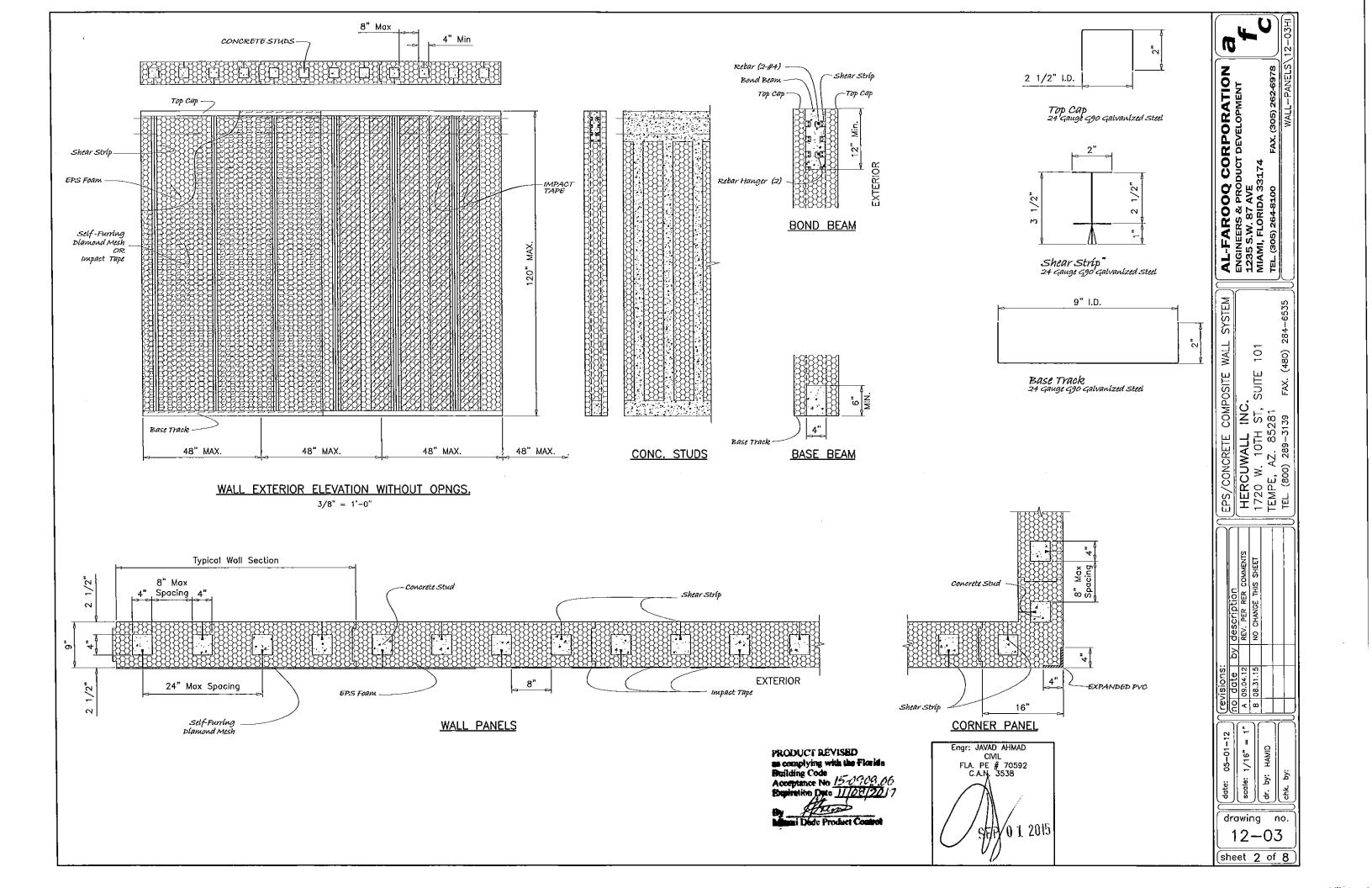
> PRODUCT REVISED as complying with the Florida Acceptance No. 15-0908.06 Expiration Date 11 108 2017 Building Code ni Dade Product Control

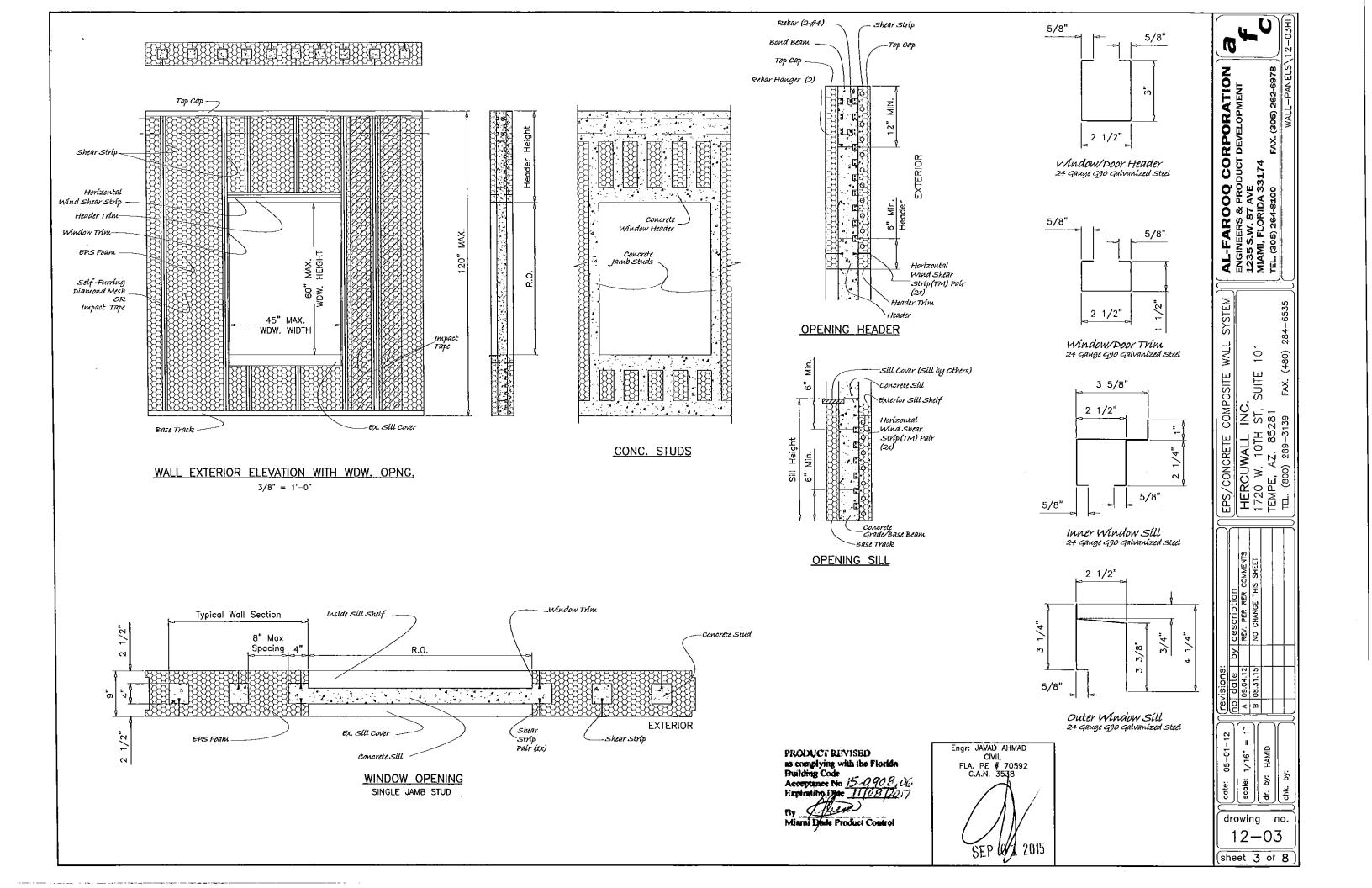


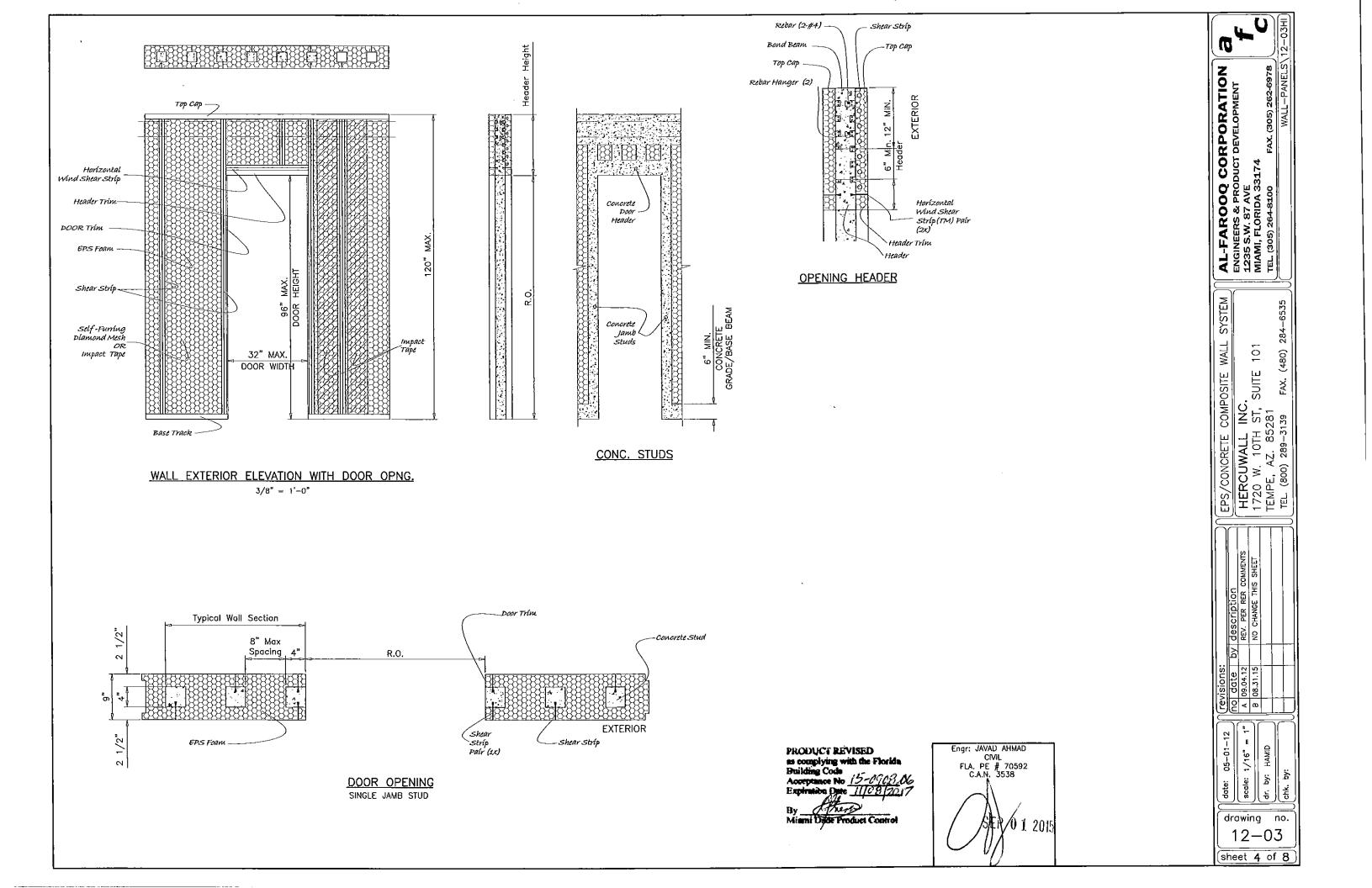
NL-FAROOQ CORPORATION
NGINEERS & PRODUCT DEVELOPMENT
235 S.W. 87 AVE
IIAMI, FLORIDA 33174
EL. (305) 2648100 FAX (305) 262-6978 AL-(480) SUITE HERCUWALL INC. 1720 W. 10TH ST, S TEMPE, AZ. 85281 TEL. (800) 289-3139

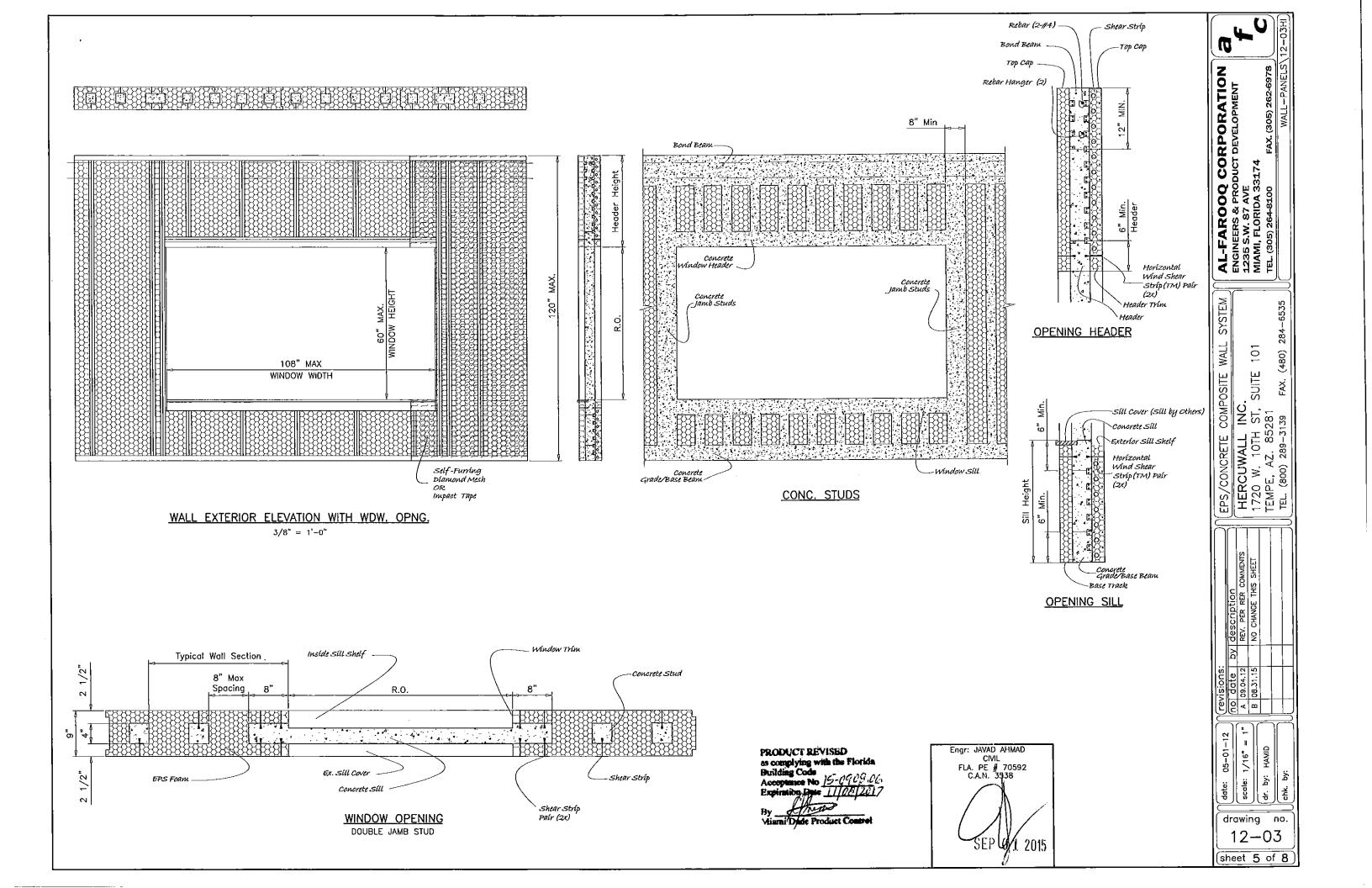
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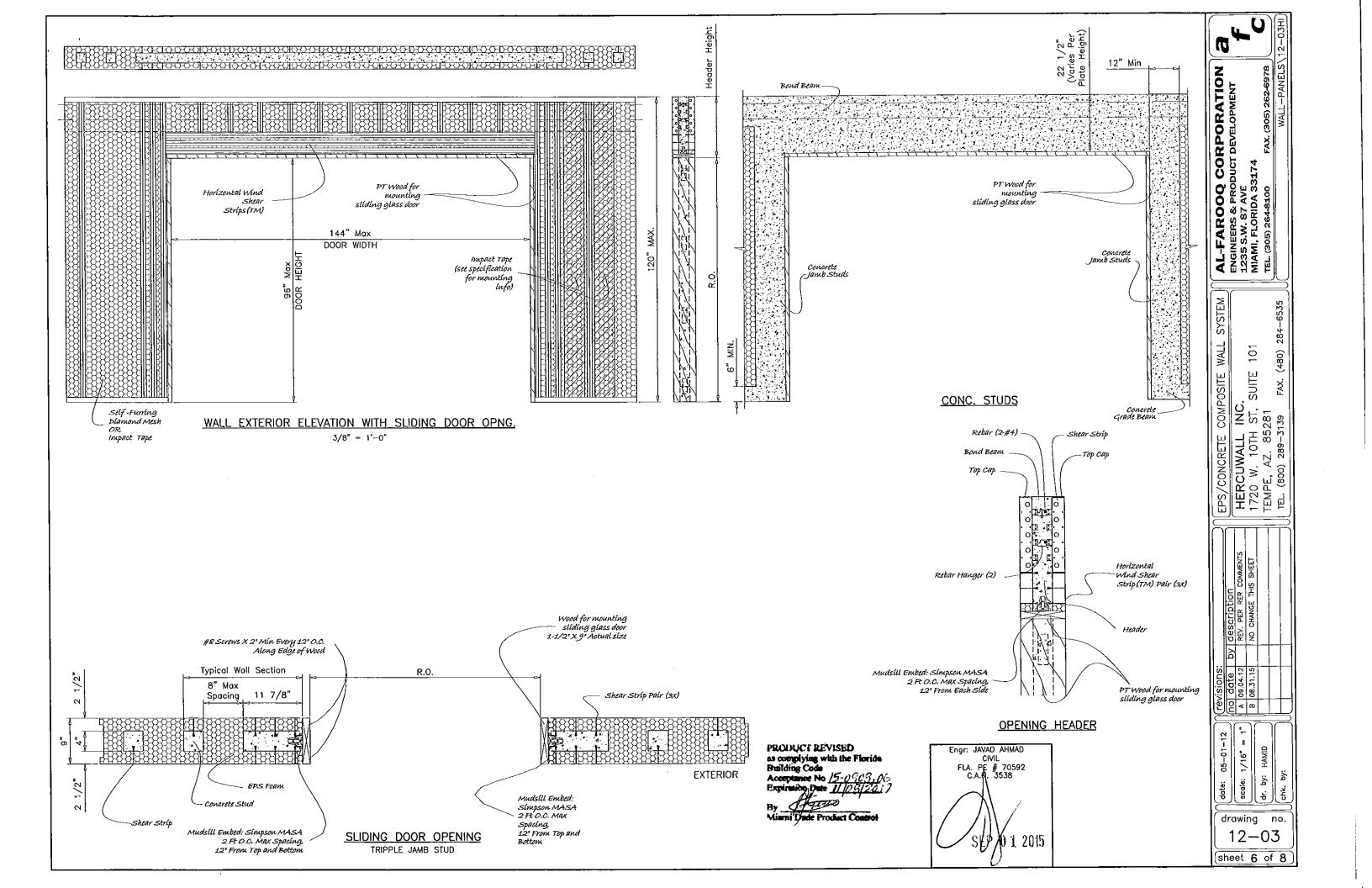
12-03 sheet 1 of 8

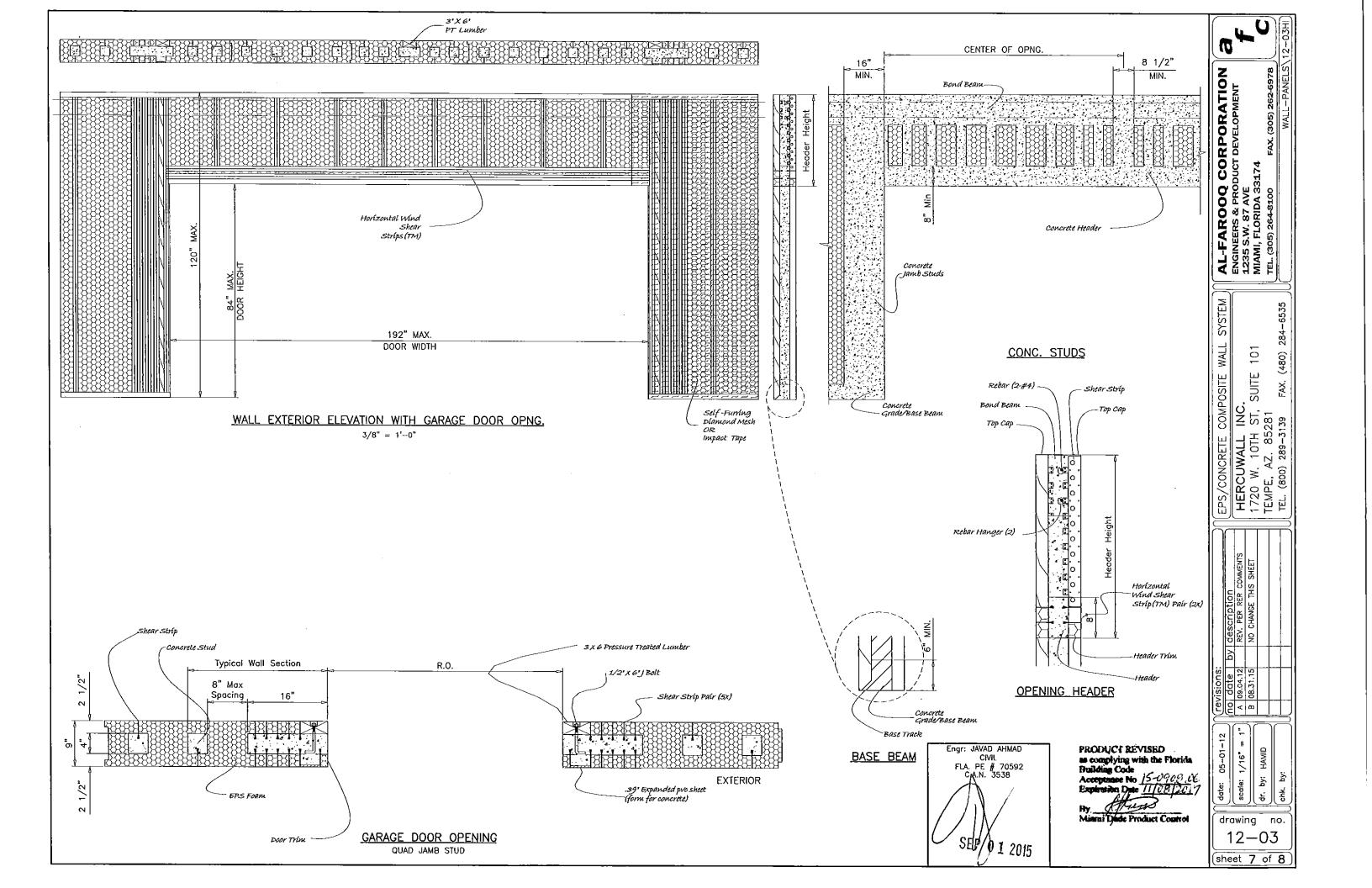


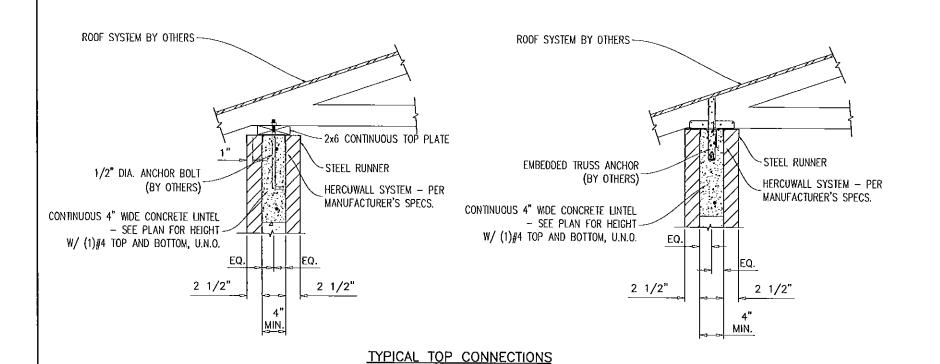


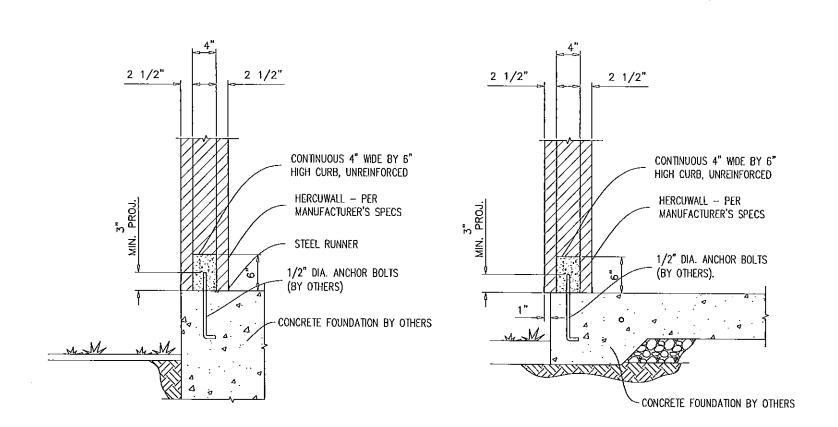












TYPICAL BOTTOM CONNECTIONS

Engr: JAVAD AHMAD CIVIL FLA. PE # 70592 C.A.N. 3538 1 2015

PRODUCT REVISED as complying with the Florida Building Code Acceptance No 15-1708, 06 Expiration Date 11103 (20)?

revisions: no date A 09.04.12 B 08.31.15 05-01 اَخَ ∬ક∬કું drawing no. 12-03

sheet 8 of 8

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